(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 15 September 2005 (15.09.2005)

PCT

(10) International Publication Number WO 2005/086267 A1

(51) International Patent Classification⁷:

H01M 8/02

(21) International Application Number:

PCT/KR2004/001950

(22) International Filing Date: 3 August 2004 (03.08.2004)

(25) Filing Language:

Korean

(26) Publication Language:

English

(30) Priority Data: 10-2004-0016162 10 March 2004 (10.03.2004)

(71) Applicant (for all designated States except US): FUEL-CELL POWER, INC. [KR/KR]; Bundang Techno Park D-dong, 101, 151 Yatap-dong, Bundang-gu, Seongnam-city, Gyeonggi-do 463-816 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KIM, Ho-Suk [KR/KR]; 209-13 Guui 3-dong, Gwangjin-gu, Seoul 143-821 (KR). HONG, Byung-Sun [KR/KR]; #201, 372-3 Yatap-dong, Bundang-gu, Seongnam-city, Gyeonggi-do 463-816 (KR). SHIN, Mee-Nam [KR/KR]; E-3, 300-7 Pyeongchang-ri, Yangji-myeon, Yongin-city, Gyeonggi-do 449-821 (KR).

(74) Agent: YOU ME PATENT & LAW FIRM; Seolim Bldg., 649-10 Yoksam-dong, Kangnam-ku, Seoul 135-080 (KR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

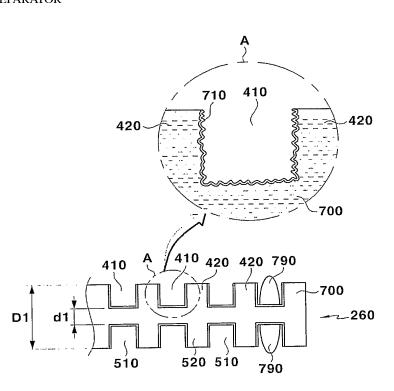
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

[Continued on next page]

(54) Title: SEPARATOR FOR FUEL CELL, MANUFACTURING METHOD THEREOF, AND FUEL CELL HAVING SUCH A SEPARATOR



(57) Abstract: A lamellar structure graphite foil is used as a material for a separator for a fuel cell, and a hydrophobic layer is formed by impregnation on flow-field channels of the graphite foil. Such a separator is manufactured by forming the flow field channel by etching the graphite foil formed with the mask pattern thereon and forming a hydrophobic layer by impregnation. According to such a separator, performance of a fuel cell stack is enhanced and the manufacturing process of a separator is simplified.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.